

AMENDMENTS TO THE CLAIMS

Kindly cancel all claims from the parent case and replace with new claims 1-20 as follows:

1. (New) A method for avoiding data corruption on a bus coupled to a backplane adapted to receive and connect at least two bus controller cards to the bus, the bus controller cards having a plurality of configuration control switches and the backplane being capable of receiving different bus controller models, the method comprising:

receiving the bus controller cards onto the backplane;
verifying that all bus controller cards are of the same model;
mutually comparing the configuration control switches of the bus controller cards;
and
preventing bus connection of bus controller cards with mutually different configuration control switch settings.

2. (New) The method according to Claim 1 further comprising:
designating one of the at least two bus controller cards as a master card;
designating other of the at least two bus controller cards as servant cards; and
determining whether configuration control switches at a servant card differ from configuration control switches of the master card.

3. (New) The method according to Claim 2 further comprising:
designating various ones of the bus controller cards as master card and servant cards on a basis of order of bus controller card receipt on the backplane or location on the backplane.

4. (New) The method according to Claim 2 further comprising:
if the configuration control switches of the servant card differ from configuration control switches of the master card:
issuing a bus reset command from the servant card; and
preventing the servant card with configuration control switches differing from master card configuration control switches from connecting to the bus.

5. (New) The method according to Claim 2 further comprising:
if the configuration control switches of the servant card match configuration
control switches of the master card:
connecting the servant card to the bus.

6. (New) The method according to Claim 1 further comprising:
receiving a first bus controller cards onto the backplane with the backplane
unpowered;
applying power to the backplane;
receiving a second bus controller card onto the backplane; and
issuing a bus reset command.

7. (New) The method according to Claim 1 further comprising:
preventing bus connection of bus controller cards of mutually different models.

8. (New) The method according to Claim 1 further comprising:
generating information at individual bus controller cards identifying bus controller
card model;
transmitting the information to other bus controller cards received at the backplane;
receiving model information from the other bus controller cards; and
comparing the generated information and the received information; and
preventing bus connection of bus controller cards of mutually different models.

9. (New) A bus controller card adapted for usage with a backplane capable of
receiving a plurality of bus controller cards including different model cards comprising:
a plurality of signal paths, the individual signal paths being defined by a backplane
connector adapted for connection to a backplane, a host connector adapted
for connection to a host computer, and an isolator coupled between the
backplane connector and the host connector, the isolator being capable of
isolating buses on the backplane from circuitry on the bus controller card;

a bridge coupling the plurality of signal paths and controllably connecting a plurality of buses associated to the plurality of signals paths;
at least one switch adapted to control the backplane operational configuration; and
a controller coupled to the plurality of signal paths, the bridge, and the at least one switch, the controller adapted for verifying that all bus controller cards connected to the backplane are of the same model, mutually comparing the switches of the bus controller cards connected to the backplane, and preventing bus connection of bus controller cards with mutually different configuration control switch settings.

10. (New) A bus controller card according to Claim 9 wherein:
the controller is further adapted to send a signal to bus controller cards connected to the backplane indicative of presence on the backplane, the signal identifying bus controller card model.

11. (New) A bus controller card according to Claim 9 wherein:
the controller is further adapted to receive signals from other bus controller cards connected to the backplane and determining whether the bus controller card model differs from the model of the other bus controller cards.

12. (New) A bus controller card according to Claim 9 wherein:
the controller is further adapted to define card status as master or servant status.

13. (New) A bus controller card according to Claim 9 wherein:
the controller is further adapted to define card status as master or servant status based on timing or position of backplane connection.

14. (New) A bus controller card according to Claim 9 wherein:
the controller is further adapted to send a signal to bus controller cards connected to the backplane indicative of settings of the at least one switch.

15. (New) A bus controller card according to Claim 9 wherein:
the controller is further adapted to receive switch settings from other bus controller cards connected to the backplane, compare the received switch settings to

settings of the at least one switch, and enable or disable connection of the bus controller card to the backplane based on results of the comparison.

16. (New) A bus controller card according to Claim 9 wherein:
the controller is further adapted to receive switch settings from other bus controller cards connected to the backplane, compare the received switch settings to settings of the at least one switch, and control the isolator in the signal paths to disconnect from the bus when the switch settings are different.

17. (New) A bus controller card according to Claim 9 wherein:
the controller is further adapted to receive a signal from a bus controller card that is newly connected to the backplane while the backplane is powered, and, in response, issuing a bus reset.

18. (New) A bus controller card according to Claim 9 wherein:
ones of the plurality of signal paths further comprise a transceiver that converts voltage levels of differential signals to a voltage level of signals utilized on a single-ended bus; and
the controller is further adapted to disable the transceiver and the isolator to prevent bus connection of bus controller cards with mutually different configuration control switch settings.

19. (New) An assembly comprising:
a backplane capable of receiving a plurality of bus controller cards including different model cards; and
at least two bus controller cards capable of coupling to the backplane, ones of the bus controller cards further comprising:
a plurality of signal paths, the individual signal paths being defined by a backplane connector adapted for connection to a backplane, a host connector adapted for connection to a host computer, and an isolator coupled between the backplane connector and the host connector, the isolator being capable of isolating buses on the backplane from circuitry on the bus controller card;

a bridge coupling the plurality of signal paths and controllably connecting a plurality of buses associated to the plurality of signals paths;
at least one switch adapted to control the backplane operational configuration; and
a controller coupled to the plurality of signal paths, the bridge, and the at least one switch, the controller adapted for verifying that all bus controller cards connected to the backplane are of the same model, mutually comparing the switches of the bus controller cards connected to the backplane, and preventing bus connection of bus controller cards with mutually different configuration control switch settings.

20. (New) An apparatus capable of avoiding data corruption on a bus coupled to a backplane adapted to receive and connect at least two bus controller cards to the bus, the backplane being capable of receiving different bus controller models, the apparatus comprising:

means for setting bus controller card configuration;
means for receiving the bus controller cards onto the backplane;
means for verifying that all bus controller cards are of the same model;
means for mutually comparing the controller card configuration of the plurality of bus controller cards; and
means for preventing bus connection of bus controller cards with mutually different configuration control switch settings.